11 August 2010

Phil Giudice
Commissioner
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

Subject: Comments on DOER Biomass RPS Rulemaking Process

Dear Commissioner Giudice,

Berkshire Renewable Power is working to build and operate a 400 dry ton per day bio-fuel and electrical generation facility at Ashuelot Park located in the town of Dalton and City of Pittsfield. Bio-fuel will be distributed for use locally to displace fossil fuel and the electricity produced will allow for Crane & Co., Inc. to have a base load source of renewable electricity. This distributed generation will reduce the load on the local electrical distribution system and supply locally produced renewable fuel. Renewable Energy Credits (RECs) are vital to the success of this economically and environmentally important project.

The planned bio-fuel source is primarily clean wood and algae which will be go through a pyrolysis process in which a bio-fuel is produced. This bio-fuel will be used to displace fossil fuel in local thermal applications and provide electricity through diesel generators. The "RTP" Rapid Thermal Process technology used is from Envergent a joint venture of Ensyn and UOP/Honeywell. ReEnergy is delivering the technology to parts of the northeast including this Berkshire County location.

At this time the electrical generation is planned solely for Crane & Co., Inc. and is expected to be capable of delivering between 15 to 20 Mw with an approximate load factor of 65%. Waste heat from the generation of electricity will be used at the adjacent industrial park for exiting and new thermal loads now supplied through natural gas. Crane is one of the largest industrial consumers of electricity in western Massachusetts and employs approximately 850 people locally.

We believe that the efficiency of the electrical generation with the RTP produced bio-fuel through diesel generators will be above 35%, significantly better than traditional steam to electrical generation. We also believe that the total emissions from the process minimal.

The balance of bio-fuel not used for electrical generation will be used locally to displace fossil fuel in thermal applications including Crane. The distribution of bio-fuel will further enhance the concept of distributed generation to our local economy.

Please consider the following points relevant to the new regulations contemplated by the July 7 letter from Ian Bowles to DOER.

1. With regard to the requirement for a minimum operating efficiency standard, a rigid numerical percentage that is applicable to all biomass plants will preclude many innovative technologies, including gasification and pyrolysis technologies, from being implemented in Massachusetts. Similar to the ballot question, any arbitrary standard that cannot be met by any of the existing plants, and will be virtually impossible for most new plants to meet will significantly hinder development of new technologies and investment in renewable power. The setting of goals is reasonable, however standards must be

developed that are achievable. The DOER should have flexibility to achieve the highest efficiencies that can be met, but still allow new plants to be built.

2. The DOER should broaden its perspective on the relevant criteria for meeting the GHG goals, which must include a broad definition of what is considered "waste wood" that reflects actual timber industry practice.
3. BRP strongly supports Mass Fish & Wildlife goals for habitat restoration and biodiversity. In a recent public meeting the DFW presented a history of biodiversity and the current situation in Massachusetts. According to DFW, their lands are 95% canopy forested and 5% shrub lands/fields/new growth. The goal is to achieve a 75/25 ratio to re-establish habitat necessary for desired biodiversity. It will be very difficult for DFW to meet or even approach these goals if the current proposed regulations on DCR lands, which limit clear cutting to 5 acres or less, are imposed on DFW. In order for the DFW to achieve their goals it will be helpful to have a local market for the wood provided through their forest management practices. Timber from state owned lands is not required for the supply of wood for BRP. However western Massachusetts has a significant amount of DFW land from which it is possible to utilize the timber created through habitat restoration efforts to supply locally produced renewable energy. It would be best to use this woody biomass within Massachusetts. And, considering that much of this timber from DFW lands will not be of saw log quality, it is very reasonable to utilize this for renewable energy purposes.
4. If RECs are not available for the use of waste wood used in biomass or bio-fuel applications in Massachusetts then it can be expected that there will be a negative impact and unintended consequences on efforts to preserve open space. Landowners will lose incentive to keep land open as timber values will be reduced. We can also expect that more timber and waste wood will be exported from the State to regional facilities which will demand the lowest price, and not necessarily be concerned with the harvesting methodology thus having a negative impact on both our economy and ecology. It seems that by purposefully defining sustainability of forest management and allowing the use of this for biomass or bio-fuel within Massachusetts with REC's will be better than to exclude this and thus have less incentive to follow sustainable practices and keep open space from development pressures.
5. The use of algae in biomass and bio-fuel applications needs to be addressed either within or as an exclusion to this current set of regulations. BRP in conjunction with Berkshire Green Energy plan to utilize algae as a feed stock to the bio-fuel production thus reducing our dependency on other longer cycle feedstock. Algae production does not compete with food crop lands as is the case for corn, soy and other crops requiring fertile lands. Also the potential production of algae per unit area far exceeds any other available crop. Our intention is to grow the algae on-site and utilize CO_2 emissions to feed the algae enhancing growth while reducing emissions. We are hopeful that algae grown for the purpose of energy production will be available for RECs and that it certainly should be excluded from the requirements related to sustainable forestry. Also, we believe that the use of algae should be given credit for earning dividends when calculating a facility's lifecycle GHG emissions (per MWh of electricity production).

6. We urge you to consider that the converting wood waste to liquid bio-fuel (through pyrolysis) should qualify for RPS eligibility according to the existing RPS requirements for the use of liquid bio-fuels, rather than according to new regulations related to the combustion of biomass. If the feed stock is considered "sustainable" as defined by regulations, then biomass utilizing waste wood should be treated similarly to other supply sources of liquid bio-fuel.
7. Even if the entire facility won't qualify for RPSD eligibility under the liquid bio-fuel regulation, the portion of the output that is shipped off-site as liquid bio-fuel, and used by third parties, should allow those parties to claim RECs under the existing liquid bio-fuel regulations (with its lower GHG compliance threshold of "50% better on a lifecycle basis than distillate"). The ability to utilize local distribution of bio-oil to displace fossil fuels is an excellent alternative to many smaller business and institutions to move to a more sustainable profile while. The direct substitution of bio-oil for fuel oil or natural gas can be done with minimal capital investment thus making the accessibility to renewable alternative a reality.

Berkshire Renewable Power is very excited to bring to Massachusetts a new advanced technology that will provide an efficient source of renewable energy. This project will help to make an existing long standing local company more sustainable by reducing their dependency on fossil fuel. Also, we can expect to have incentives to landowners to keep open space away from development and assist in habitat restoration and development of biodiversity.

Biomass and bio-fuel applications allow for renewable base load electricity production; wind, solar & hydro do not. The BRP project can be a significant contributor towards meeting the RPS in Massachusetts and provide our local economy with a boost that also helps protect our environment. Establishing regulations that help a project like this become successful will help our state become more sustainable. We highly encourage you to consider this in your decision making regarding the new regulations.

Sincerely,

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sent via email